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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,265	03/31/2004	Roger C. Jeppsen	35480.P18990	7477
7590	04/12/2006			EXAMINER
Grossman, Tucker, Perreault & Pfleger, PLLC c/o PortfolioIP P.O. Box 52050 Minneapolis, MN 55402			SCHLIE, PAUL W	
			ART UNIT	PAPER NUMBER
			2186	

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	10/815,265	
Examiner	Art Unit Paul W. Schlie	
	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 31 March 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-19 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 16 August 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 1.

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

1. Claims 1-19 have been examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tyndall (US 2002/0156942).

As per independent claims 1, 6, 11 and 16, Tyndall teaches a system and/or methods comprising a storage system router (i.e. expander) which may be remotely interconnected with a potential plurality of hosts and storage devices utilizing a potential plurality of communication protocols to enable said storage system router to remotely manage the evaluation of storage commands on behalf of said host inclusive of all functions inherently associated with that required to remotely copy data from a first storage device to a second storage device comprising said potential plurality of storage devices, where said storage system router is considered to inherently comprise that functionality attributed to a "copy manager" by the applicant (see paragraph [0003] [0117] and figures 2-3); but does not teach explicitly that said storage system router may comprise an integrated circuit predominantly enabling and/or implementing the same. However as it is well understood by those of ordinary skill in the art at the time of the claimed invention that increasing complex systems may be embodied wholly within

an integrated circuit, it is considered correspondingly obvious that such a storage system router may be predominantly embodied within an integrated circuit for the benefit of potentially reducing the power consumption, form-factor, and/or cost of such a system.

As per claims 2-5, 7-10, 12-15 and 17-19, being dependent on claims 1, 6, 11, 16, or correspondingly dependent claim inclusively, said integrated circuit as reviewed above would inherently embody the functionality inherently associated with that required to successfully remotely evaluate an extended copy command received from said host, as per claims (2 and 5); and as said storage devices may be of any type known to one of ordinary skill in the art at the time of the claimed invention, inclusive of that which may be considered to be a virtual storage device (such as a RAID storage subsystem, which may be viewed itself as a system comprising a storage system router as taught by Tyndall interconnected with a potential plurality of hosts and storage devices), it is considered obvious to one of ordinary skill in the art at the time of the claimed invention that said storage system router (i.e. extender) may be interconnected with any type of storage device inclusive of and/or embodied within a virtual storage device, as per claims (3-4); thereby claims (2-5) are rejected, as are claims (7-10, 12-15, 17-19) as considered encompassed by claims (2-5) in other form and thereby correspondingly rejected by the same arguments as presented above.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PIERRE BATAILLE
PRIMARY EXAMINER
4/15/06